

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Johansson et al.

Serial No.: 10/047,859

Filed: January 15, 2002

For: METHODS, APPARATUS AND COMPUTER PROGRAM PRODUCTS FOR
CONFIGURING A NETWORK INTERFACE OF A WIRELESS MOBILE
DATA BASE STATION

Group Art Unit: 2616

Examiner: Brenda H. Pham

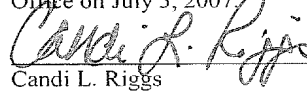
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APPELLANTS' AMENDED BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

Sir:

This Amended Appeal Brief is filed pursuant to the "Notice of Appeal to the Board of Patent Appeals and Interferences" electronically transmitted on March 15, 2007 and to the "Notification of Non-Compliant Appeal Brief" of June 15, 2007.

Real Party In Interest

The real party in interest is assignee Ericsson Inc., Plano, Texas, U.S.A.

Related Appeals and Interferences

Appellants are aware of no appeals or interferences that would be affected by the present appeal.

Status of Claims

Claims 1, 3-8, 10-13, 15-20, and 22-26 remain pending as of the filing date of this Brief, and stand finally rejected. Appellants appeal the final rejection of Claims

1, 3-8, 10-13, 15-20, and 22-26 in the final office action mailed December 29, 2006 (hereinafter "Final Action").

The attached Appendix A presents the claims at issue as finally rejected in the Final Action.

Status of Amendments

Amendments filed May 23, 2006 and November 8, 2006 have been entered. The attached Appendix A presents the pending claims and the corresponding status of each of the pending claims.

Summary of the Claimed Subject Matter

Some embodiments of the present invention according to independent Claim 1 provide methods of configuring a wireless base station of a wireless mobile data communications system. A port number and/or an internet address to be assigned to the wireless base station is determined. *See, e.g.*, FIG. 4; specification, p. 6, lines 33 and 34. A datagram including the assigned port number and/or internet address in a destination field of a header of the datagram is transmitted from a controller of the wireless mobile data communications system to the wireless base station via a backbone network of the wireless mobile data communications system. *See, e.g.*, FIG. 4; specification, p. 7, lines 8-11. Responsive to receipt of the datagram at the wireless base station, the wireless base station is configured to accept datagrams addressed to the assigned port number and/or internet address. *See, e.g.*, FIG. 4; specification, p. 7, lines 12-19.

Some embodiments of the present invention according to independent Claim 8 provide a wireless base station for use in a wireless mobile data communications system. The wireless base station includes a radio communications unit operative to communicate radio signals to and from mobile terminals. *See, e.g.*, FIG. 2; specification, p. 4, lines 18-21. A mobile data communications interface is coupled to the radio communications circuit and configured to connect to a node of a backbone network of the wireless mobile data communications system. *See, e.g.*, FIG. 2; specification, p. 4, lines 21-23. The mobile data communications interface includes a

self-configuring network interface operative, responsive to receipt of a datagram from node of the backbone network including an assigned port number and/or a network address in a destination field of a header of the datagram, to configure itself to accept datagrams addressed to the assigned port number and/or internet address over the backbone network. *See, e.g.*, FIG. 2; specification, p. 4, line 32 through p. 5, line 3.

Some embodiments of the present invention according to independent Claim 13 provide a controller for a wireless mobile data communications system. The controller includes means for determining a port number and/or an internet address assigned to a wireless base station of the wireless mobile data communications system and means for transmitting a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram to the wireless base station via a backbone network of the wireless mobile data communications system.. *See, e.g.*, FIG. 2; specification, p. 5, lines 4-20 (outlining exemplary structure corresponding to recited means).

Some embodiments of the present invention according to independent Claim 18 provide a wireless base station including means for receiving a datagram including an assigned port number and/or internet address for the wireless base station in a destination field of a header of the datagram and means for configuring the wireless base station to accept datagrams addressed to the assigned port number and/or internet address in the received datagram. *See, e.g.*, FIG. 2; specification, p. 5, lines 21-31 (outlining exemplary structure corresponding to recited means).

Some embodiments of the present invention according to independent Claim 20 provide computer program products for configuring a wireless base station of a wireless mobile data communications system. The computer program product includes program code embodied in a computer-readable storage medium, the computer program code including program code for selecting a port number and/or an internet address for assignment to a wireless base station of the wireless mobile data communications system and program code for transmitting a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram to the wireless base station via a backbone network of the wireless mobile data communications system. *See, e.g.*, FIG. 2; specification, p. 5, lines 13-20.

Some embodiments of the present invention according to independent Claim 25 provide computer program products for configuring a wireless base station of a wireless mobile data communications system. The computer program product includes program code embodied in a computer-readable storage medium, the computer program code including program code for receiving a datagram including an assigned port number and/or internet address for the wireless base station in a destination field of a header of the datagram and program code for configuring the wireless base station to accept datagrams addressed to the assigned port number and/or internet address in the received datagram. *See, e.g.*, FIG. 2; specification, p. 5, line 34 through p. 6, line 4.

Grounds of Rejection to be Reviewed on Appeal

1. Are Claims 1, 5-6, 8, 11, 13, 16, 18, 20, 23, and 25 properly rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,983,090 to Aoki (hereinafter "Aoki")?

2. Are Claims 3, 4, 7, 10, 12, 15, 17, 19, 22, 24 and 26 properly rejected under 35 U.S.C. § 103(a) as unpatentable over Aoki in view of Appellants' Alleged Admitted Prior Art (hereinafter "APA")?

Argument

I. Introduction

Claims 1, 5-6, 8, 11, 13, 16, 18, 20, 23, and 25 stand rejected as allegedly anticipated. To anticipate a claim, the reference must teach every element of the claim. M.P.E.P. § 2131. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 3, 4, 7, 10, 12, 15, 17, 19, 22, 24 and 26 stand rejected as allegedly obvious. To establish a *prima facie* case of obviousness, the prior art reference or references when combined must teach or suggest all the recitations of the claims, and there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. M.P.E.P. §2143.

II. Claims 1, 5-6, 8, 11, 13, 16, 18, 20, 23, and 25 are patentable over Aoki

Independent Claims 1, 8, 13, 18, 20 and 25 stand rejected as allegedly anticipated by Aoki. Final Action, pp. 2 and 3. In rejecting these claims, the Final Action states that Aoki discloses:

... communicating a datagram including the assigned port number and/or Internet address in a destination field of a header of the datagram from a controller of the wireless mobile data communications system to the wireless base station via a backbone network of the wireless mobile data communications system (figure 1 shows service provider assigned IP1 address to BS via public network, abstract shows the base station changes the destination address of the data sent by the service provider from (sic) "IP1" for the base stations to "IP2" for the mobile stations for subsequent transfer to the mobile station); and responsive to receipt of the datagram at the wireless base station, configuring the wireless base station to accept datagrams addressed to the assigned port number/Internet address (figure 10 shows step of receiving data using IP1 address, also see abstract.)

Final Action, pp. 2 and 3.

In the Amendment filed November 6, 2007, Appellants noted that Aoki does not disclose that "the assigned port number and/or internet address" is "in a destination field of a header of the datagram" and that the assignment occurs *in response to this datagram*. In fact, Aoki is silent as to the specific manner in which the assigned IP address IP1 is communicated. In particular, with reference to the cited FIG. 10, Aoki states:

Upon receipt of an acknowledge from the service provider SP for that request, the base station BS2 recognizes the IP address "IP1" sent together with the acknowledge as its own address.

Aoki, column 8, lines 2-4. This provides no specific indication as to where in a datagram, *e.g.*, in a header, message body, etc., the address IP1 is provided. Aoki merely vaguely indicates that it is "sent together with the acknowledge."

In response to these arguments, the Final Action cites column 6, lines 13-20 as allegedly providing such teachings. Final Action, p. 5. This passage states:

Assume here that the mobile station PS1 sends data in which IPx is set as the destination address to make access to a certain server on the network and IP2 is set as the source address as shown in FIG. 4. When receiving the transmit data over a radio communication link, the base station BS1 replaces the IP address "IP2" indicating the location that sent the transmit data with the IP address "IP1" assigned to the base station by the service provider SP. The base station then sends the transmit data subjected to ***address replacement*** to the server of the service provider SP over the public network PNW as shown in FIG. 4. (emphasis added)

This passage describes modifying a ***message*** received from a mobile station, not configuring the ***base station*** to accept datagrams having a particular address.

The Final Action states "[f]rom the above teaching shows that IP1 is the destination address and is assigned to the base station by service provider." Final Action, p. 5. This misses the point raised in Appellants' Amendment of November 8, 2006, which is that Aoki does not indicate ***how*** this address is assigned other than the vague statement discussed above, *i.e.*, that the address IP1 is "sent together with the acknowledge." Accordingly, Appellants submit that Aoki does not provide the teachings alleged in the Final Action.

For at least these reasons, Appellants submit that independent Claims 1, 8, 13, 18, 20 and 25 are patentable over Aoki, and that the rejections of these claims are erroneous and should be reversed. Appellants further submit that dependent Claims 3-7, 10-12, 15-17, 19, 22-24 and 26 are patentable at least by virtue of the patentability of the respective ones of independent Claims 1, 8, 13, 18, 20 and 25 from which they depend. Appellants submit that rejections of the dependent claims are erroneous and should be reversed.

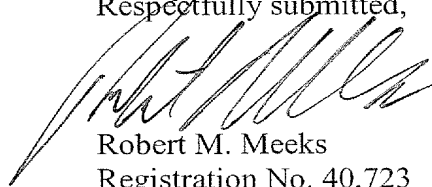
III. Conclusion

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In light of the above discussion, Appellants submit that the pending claims are directed to patentable subject matter and, therefore, request reversal of the rejections of those claims and passing of the application to issue.

It is not believed that an extension of time and/or additional fee(s) are required, beyond those that may otherwise be provided for in documents accompanying this paper. In the event, however, that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned for under 37 C.F.R. §1.136(a). Any additional fees believed to be due in connection with this paper may be charged to Deposit Account No. 50-0220.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert M. Meeks', is written over the typed name.

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APPENDIX A

Pending Claims USSN Serial No. 10/047,859
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1. (Previously Presented) A method of configuring a wireless base station of a wireless mobile data communications system, the method comprising:

determining a port number and/or an internet address to be assigned to the wireless base station;

communicating a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram from a controller of the wireless mobile data communications system to the wireless base station via a backbone network of the wireless mobile data communications system; and

responsive to receipt of the datagram at the wireless base station, configuring the wireless base station to accept datagrams addressed to the assigned port number and/or internet address.

2. (Canceled)

3. (Previously Presented) A method according to Claim 1, wherein communicating a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram from a controller of the wireless mobile data communications system to the wireless base station via a backbone network of the wireless mobile data communications system comprises:

communicating the datagram including the assigned port number and/or internet address to a router of the backbone network;

routing the received datagram to an interface between the router and the wireless base station.

4. (Previously Presented) A method according to Claim 3, wherein communicating a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram from a controller of the wireless

mobile data communications system to the wireless base station via a backbone network of the wireless mobile data communications system further comprises communicating the routed datagram to the wireless base station via a frame relay connection between the wireless base station and the router.

5. (Previously Presented) A method according to Claim 3, wherein communicating a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram from a controller of the wireless mobile data communications system to the wireless base station via a backbone network of the wireless mobile data communications system comprises communicating the datagram according to one of TCP, UDP, or TP4.

6. (Previously Presented) A method according to Claim 3, wherein communicating a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram from a controller of the wireless mobile data communications system to the wireless base station via a backbone network of the wireless mobile data communications system comprises communicating the datagram according to one of IP or CNLP.

7. (Original) A method according to Claim 1, wherein the wireless mobile data communications system comprises a Cellular Digital Packet Data (CDPD) system, and wherein the wireless base station comprises a Mobile Data Base Station (MDBS).

8. (Previously Presented) A wireless base station for use in a wireless mobile data communications system, the wireless base station comprising:

a radio communications unit operative to communicate radio signals to and from mobile terminals; and

a mobile data communications interface coupled to the radio communications circuit and configured to connect to a node of a backbone network of the wireless mobile data communications system, the mobile data communications interface

including a self-configuring network interface operative, responsive to receipt of a datagram from node of the backbone network including an assigned port number and/or a network address in a destination field of a header of the datagram, to configure itself to accept datagrams addressed to the assigned port number and/or internet address over the backbone network.

9. (Canceled)

10. (Original) A wireless base station according to Claim 8, wherein self-configuring network interface is operative to receive the datagram including a port number and/or network address therein over a frame relay connection between the wireless base station and a router of the backbone network of the wireless mobile data communications system.

11. (Original) A wireless base station according to Claim 8, wherein the assigned port number and/or internet address comprises one of a TCP port number, a UDP port number, a TP4 port number, an IP address or a CNLP address.

12. (Original) A wireless base station according to Claim 8, wherein the wireless mobile data communications system comprises a Cellular Digital Packet Data (CDPD) system, and wherein the wireless base station comprises a Mobile Data Base Station (MDBS).

13. (Previously Presented) A controller for a wireless mobile data communications system, the controller comprising:

means for determining a port number and/or an internet address assigned to a wireless base station of the wireless mobile data communications system; and

means for transmitting a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram to the wireless base station via a backbone network of the wireless mobile data communications system.

14. (Canceled)

15. (Previously Presented) A controller according to Claim 13, wherein the means for transmitting a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram to the wireless base station via a backbone network of the wireless mobile data communications system comprises means for transmitting the datagram including the assigned port number and/or internet address to a router of the backbone network.

16. (Original) A controller according to Claim 13, wherein the assigned port number and/or internet address comprises one of a TCP port number, a UDP port number, a TP4 port number, an IP address or a CNLP address.

17. (Original) A controller according to Claim 13, wherein the means for selecting and the means for transmitting comprise a Network Management System (NMS) node of a Cellular Digital Packet Data (CDPD) system.

18. (Previously Presented) A wireless base station, comprising:
means for receiving a datagram including an assigned port number and/or internet address for the wireless base station in a destination field of a header of the datagram; and
means for configuring the wireless base station to accept datagrams addressed to the assigned port number and/or internet address in the received datagram.

19. (Original) A wireless base station according to Claim 18, wherein the wireless base station comprises a Mobile Data Base Station (MDBS) of a Cellular Digital Packet Data (CDPD) system.

20. (Previously Presented) A computer program product for configuring a wireless base station of a wireless mobile data communications system, the computer

program product comprising program code embodied in a computer-readable storage medium, the computer program code comprising:

program code for selecting a port number and/or an internet address for assignment to a wireless base station of the wireless mobile data communications system; and

program code for transmitting a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram to the wireless base station via a backbone network of the wireless mobile data communications system.

21. (Canceled)

22. (Previously Presented) A computer program product according to Claim 20, wherein the program code for transmitting a datagram including the assigned port number and/or internet address in a destination field of a header of the datagram to the wireless base station via a backbone network of the wireless mobile data communications system comprises program code for transmitting the datagram including the assigned port number and/or internet address to a router of the backbone network.

23. (Original) A computer program product according to Claim 20, wherein the assigned port number and/or internet address comprises one of a TCP port number, a UDP port number, a TP4 port number, an IP address or a CNLP address.

24. (Original) A computer program product according to Claim 20, wherein the program code for selecting and the program code for transmitting are operative to execute on a Network Management System (NMS) node of a Cellular Digital Packet Data (CDPD) system.

25. (Previously Presented) A computer program product for configuring a wireless base station of a wireless mobile data communications system, the computer program product comprising program code embodiment in a computer-readable storage medium, the computer program code comprising:

program code for receiving a datagram including an assigned port number and/or internet address for the wireless base station in a destination field of a header of the datagram; and

program code for configuring the wireless base station to accept datagrams addressed to the assigned port number and/or internet address in the received datagram.

26. (Original) A computer program product according to Claim 25, wherein the wireless base station comprises a Mobile Data Base Station (MDBS) of a Cellular Digital Packet Data (CDPD) system.

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APPENDIX B – EVIDENCE APPENDIX
(NONE)

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APPENDIX C – RELATED PROCEEDINGS
(NONE)